

Abstract of the Disclosure

10 Intercalated graphite flake is prepared having enhanced exfoliation characteristics in
terms of at least one of reduced exfoliation temperature and increased expanded volume
(also referred to as "worm volume"). The method entails contacting graphite flake with an
organic expansion aid either before immersing in an aqueous intercalant solution or by
dissolving the expansion aid in the aqueous intercalant solution prior to subjecting graphite
15 flake to an electrolytic oxidation treatment therein. The graphite flake is subjected to
electrolytic oxidation to provide intercalated graphite flake. Then, the intercalated graphite
flake is recovered from the bulk of the intercalant solution and is preferably washed and
further treated with a suitable surfactant in order to reduce the exposed gallery acids on the
subsequently dried flake.

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